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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SCHIFF HARDIN & WAITE
PATENT DEPARTMENT
7100 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER
PATEL, KANJIBHAI B

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/555,425	HIRN, ANDREAS	
	Examiner	Art Unit	
	Kanji Patel	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5/30/00* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,15 and 19-23* is/are rejected.

7)☒ Claim(s) *10-14,16-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. Drawings filed on 5/30/00 has been objected by the Draftsperson (see attached PTO form 948).

Claim Objections

2. Claims 4-5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim limitations of claims 4-5 are not further limiting the independent claim 3.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 9, 15 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kang (US 5,270,836—IDS).

For claim 1, Kang discloses a method for converting digital source data referring to source pixels in the raster of a first resolution into digital target data in the raster of a second resolution (at least figure 6), comprising the steps of:

(a) scaling the digital source data by at least one scaling factor (at least step 30 in figure 6);

(b) allocating a target image matrix (column 2, lines 57-65; for example 600X600 dpi corresponds to a target or output image matrix) to each of the digital source datum (200X200 in column 2, lines 57-65 provides a digital source datum) source on a basis of a surround window surrounding the source pixel and determining the digital target data from neighboring target image matrices such that each target pixel is directly formed from a source pixel taking the surroundings thereof into consideration;

(c) using each digital source datum for smoothing the target data (at least step 40 in figure 6 provides smoothing) to be determined from all neighboring source data; and

(d) implementing scaling (step 30 in figure 6 reads on scaling) and smoothing (step 40 in figure 6 reads on smoothing) such in a common processing step that the target data are smoothed in the raster of the source data.

For claim 2, Kang discloses a method, further comprising the step of:

superimposing neighboring target image matrices on one another for determining the target data or are joined without overlap (figures 1-5).

For claim 9, Kang discloses a method, wherein the scaling and the smoothing ensue in a common work step (steps 30 and 40 in figure 6 provides a common work step).

For claim 15, Kang discloses a method, wherein pixel data belonging to images are processed as the digital source data (figure 1; column 3, lines 39-44).

For claim 19, Kang discloses a method, further comprising the step of: allocating a gray scale value to each source pixel (step 700 in figure 9B).

For claim 20, Kang discloses a method, wherein at least one of a scaling and smoothing ensues in the gray scale value raster (steps 70 and 80 in figure 6).

For claim 21, Kang discloses a method, further comprising the steps of: allocating a color value to each source pixel (figure 6; the concepts of the Kang technique is equally applicable to the color).

For claim 22, Kang discloses a method, wherein at least one of a scaling and smoothing ensues in the color value raster (figure 6; the concepts of the Kang technique is equally applicable to the color).

Claim 8 is rejected under 35 U.S.C. 103 9a) as being unpatentable over Kang (US 5,270,836—IDS) as applied to claims 1-2, 9,15 and 19-22 above and further in view of Calarco et al. (US 5,237,432).

For claim 8, Kang differs in that he does not clearly disclose a fractional value of the scale factor. However, Calarco et al. in the same field of endeavor discloses an image scaling technique having a fractional value of the scale factor as shown at least in figure 4A. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kang wherein the scale factor has a fractional value. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kang by the teaching of Calarco et al. in order to provide for accurately scaling the video signals of a digital image or document during the scanning or processing of the digital signals as shown by Calarco et al in. column 3, lines 45-49.

4. **Claims 3-7 and 23** are rejected under 35 U.S.C. 102(b) as being anticipated by Lowes et al. (US 5,394,485--IDS).

For claim 3, Lowe et al disclose a method for converting digital source data in a raster of a first resolution into digital target data in a raster of a second resolution (figures 1-4), comprising the steps of:

(a) scaling and smoothing the digital source data by a scaling factor (column 2, lines 21-64);

(bl) selecting a scaling rule from a plurality of selectable scaling rules (column 2, lines 21-65);

(b2) selecting a smoothing rule from a plurality of smoothing rules (column 2, lines 21-65);

(c) forming a single scaling and smoothing rule from the selected scaling rule and the selected smoothing rule, both a smoothing of the digital target data in the raster of the digital source data as well as a scaling ensuing in respectively one processing step with said single scaling and smoothing rule during formation of the target data (column 2, lines 21-65);

(cl) allocating a target image matrix (figures 1B, 2B, 3B, 4B) to each source datum on a basis of a surround window surrounding the digital source pixel and determining the digital target data from neighboring target image matrices such that each target pixel is directly formed from a source pixel taking the surroundings thereof into consideration;

(d) using each source datum (column 2, lines 21-65) for smoothing the target data to be determined from all neighboring source data.

For claim 4, Lowe et al disclose a method, further comprising the step of:

selecting the scaling rule from a plurality of scaling rules (column 2, lines 21-65).

For claim 5, Lowe et al disclose a method, further comprising he step of: selecting the smoothing rule from a plurality of smoothing rules (column 2, lines 21-65).

For claim 6, Lowe et al disclose a method, wherein the selecting of the scaling rule ensues on a basis of a print job (column 1, lines 35-38).

For claim 7, Lowe et al disclose a method, further comprising the step of: using different smoothing rules region-by-region within the print job (column 2, lines 21-65).

For claim 23, Lowe et al discloses a method according to claim 5, wherein the selecting of the smoothing rule ensues on a basis of a print job (column 2, lines 21-65).

Allowable Subject Matter

5. **Claims 10-14, 16-18** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kashihara (US 5,982,508) discloses an image processing method and apparatus.

Overton (US 5,440,407) discloses a pixel correction and smoothing method.

Rossignac (US 5,872,572) discloses a method and apparatus for generating non-uniform resolution image data.

Eglit (US 6,002,446) discloses a method and apparatus for upscaling and image.

Lapidous (US 5,793,379) discloses a method and apparatus for scaling images having a plurality of scan lines of pixel-data.

Sonobe et al. (US 6,091,859) discloses an image data enlarging/smoothing processor.

Kwon (US 6,034,786) discloses an apparatus and method for enlarging or reducing an image in an image processing system.

Evans et al. (US 4,029,947) discloses a character generating method and system.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kanji Patel** whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday to Thursday from 8:00 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Mehta, Bhavesh** can be reached on (703) 308-5246.

The fax phone for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is (703) 305-4700.

Kanji Patel
Art Unit 2625
August 25, 2003

Jayanti K. Patel
Primary Examiner